In the Claims

1. (Previously Presented) A stereoscopic format conversion system comprising:

a plurality of front end processing systems;

a 3D data formatter for performing real-time conversion of one of a plurality of input 3D formats to one of a plurality of output 3D formats, said 3D data formatter including at least two separate video processing units;

a plurality of back-end processors; and

a control system.

2. (Previously Presented) A method of performing stereoscopic format conversion comprising:

inputting a 3D data stream from one or more of a plurality of 3D formats;

processing said 3D data;

performing real time 3D data format conversion to produce format converted data using a 3D data formatter including at least two separate video processing units;;

processing said format converted data for outputting to produce a converted 3D data stream; and

outputting converted 3D data stream.

3. (Previously Presented) A stereoscopic format conversion system comprising:

a front end processing system and a front end expansion port;

a 3D data formatter for performing real-time conversion of one of a plurality of input 3D formats to one of a plurality of output 3D formats including at least two separate

video processing units;

a back-end processor and a back end expansion port; and

a control system.

4. (Previously Presented) A method of performing stereoscopic format conversion comprising:

inputting a 3D data stream from a plurality of 3D formats;

processing said 3D data stream at a front end processor or a processor added to a front end expansion port using a 3D data formatter including at least two separate video processing units;

performing real time 3D data format conversion to produce format converted data;

processing said format converted data to produce a converted 3D data stream for outputting at a back end processor or a processor added to a back end expansion port; and

outputting converted 3D data stream, wherein said stereoscopic format conversion method performs conversion of a plurality of 3D formats to any one of said plurality of said 3D formats.

5. (Previously Presented) A stereoscopic format conversion system comprising:

a front end processing system;

a 3D data formatter for performing real-time conversion of one of a plurality of input 3D formats to one of a plurality of output 3D formats including at least two separate video processing units;

a back-end processor; and

a control system,

wherein the 3D data formatter converts stereoscopic video and performs a real time function selected from the group consisting of stereoscopic image pan, alignment, crop, zoom, keystone correction, aspect ratio conversion, linear scaling, non-linear scaling, scan-rate conversion, and any combination comprising at least one of the foregoing functions.

6. (Previously Presented) A stereoscopic format conversion system comprising:

a front end processing system for processing from one or more of plural 3D input formats;

a 3D data formatter for performing real-time conversion of one of a plurality of input 3D formats to one of a plurality of output 3D formats including at least two separate video processing units;

a back-end processor for processing to one or more of plural 3D output formats; and

a control system,

wherein the one or more 3D input formats and the one or more 3D output formats may be independently selected from the group of formats consisting of standard 2D; dual-channel; field-sequential; frame-sequential (page-flipped); over-under; row-interleaved; side-by-side; column-interleaved, spectrally multiplexed, and combinations comprising at least one of the foregoing formats.

7. (New) The stereoscopic format conversion system as in claim 1, wherein the one or more 3D input formats and the one or more 3D output formats may be independently

selected from the group of formats consisting of standard 2D; dual-channel; field-sequential; frame-sequential (page-flipped); over-under; row-interleaved; side-by-side; column-interleaved, spectrally multiplexed, and combinations comprising at least one of the foregoing formats.

8. (New) The method of performing stereoscopic format conversion as in claim 2, wherein the one or more 3D input formats and the one or more 3D output formats may be independently selected from the group of formats consisting of standard 2D; dual-channel; field-sequential; frame-sequential (page-flipped); over-under; row-interleaved; side-by-side; column-interleaved, spectrally multiplexed, and combinations comprising at least one of the foregoing formats.

9. (New) The stereoscopic format conversion system as in claim 3, wherein the one or more 3D input formats and the one or more 3D output formats may be independently selected from the group of formats consisting of standard 2D; dual-channel; field-sequential; frame-sequential (page-flipped); over-under; row-interleaved; side-by-side; column-interleaved, spectrally multiplexed, and combinations comprising at least one of the foregoing formats.

10. (New) The stereoscopic format conversion system as in claim 5, wherein the one or more 3D input formats and the one or more 3D output formats may be independently selected from the group of formats consisting of standard 2D; dual-channel; field-sequential; frame-sequential (page-flipped); over-under; row-interleaved; side-by-side; column-interleaved, spectrally multiplexed, and combinations comprising at least one of the foregoing formats.

11. (New) The stereoscopic format conversion system as in claim 1, wherein one of

said at least two separate processing units is for processing left eye data and another of said at least two separate processing units is for processing right eye data.

12. (New) The method of performing stereoscopic format conversion as in claim 2, wherein one of said at least two separate processing units is for processing left eye data and another of said at least two separate processing units is for processing right eye data..

13. (New) The stereoscopic format conversion system as in claim 3, wherein one of said at least two separate processing units is for processing left eye data and another of said at least two separate processing units is for processing right eye data..

14. (New) The stereoscopic format conversion system as in claim 5, wherein one of said at least two separate processing units is for processing left eye data and another of said at least two separate processing units is for processing right eye data..

15. (New) The stereoscopic format conversion system as in claim 1, wherein one of said at least two separate processing units is for processing video data of one output 3D formats or video formats and another of said at least two separate processing units is for processing video data of one output 3D formats or video formats.

16. (New) The method of performing stereoscopic format conversion as in claim 2, wherein one of said at least two separate processing units is for processing video data of one output 3D formats or video formats and another of said at least two separate processing units is for processing video data of one output 3D formats or video formats.

17. (New) The stereoscopic format conversion system as in claim 3, wherein one of said at least two separate processing units is for processing video data of one output 3D formats or video formats and another of said at least two separate processing units is for processing video data of one output 3D formats or video formats.

18. (New) The stereoscopic format conversion system as in claim 5, wherein one of said at least two separate processing units is for processing video data of one output 3D formats or video formats and another of said at least two separate processing units is for processing video data of one output 3D formats or video formats.